



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

**D3564-5**  
**Job Sheet 169538**



Part No: D3564-5

Job Qty: 10 ea

Part Name: Wearplate Center



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 12/13/17

Job Tracking No:

Due Date: 1/5/18

Created By: Mario Poulin

Type: SOLD

Description:

Customer: Falcon Aviation Services (CFALC01)

PO Box 62030 Abu Dhabi, United Arab Emirates ph:011 971 50 445 0187 fx:+971 2 444 0022.

Note: DWG REV E IPP Rev:A New Issue 07-03-08 ec IPP Rev:B As per Rev C 07-07-09 JLM IPP Rev:C As per Rev D 07-09-09 JLM Verified By:EC IPP Rev D added DT# 08.04.21 DD Verified by EC

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty    | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off    |
|-------|--------------------|--------|------------|----------|-----------|---------|-----------------------|-----------|-------------|
|       |                    |        |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |             |
| 90    | Start up Operation | 10 Ea  |            | 1/4/18   | 0.00      | 0.00    | Start Up Waterjet     |           | SE          |
| 100   | Waterjet           | 10 pcs |            | 1/4/18   | 0.00      | 2.01    | Waterjet1             |           | DAS SE      |
| 120   | QC                 | 10 pcs |            | 1/4/18   | 0.00      | 0.00    | QC8                   |           | 38          |
| 130   | Brake NC           | 10 pcs |            | 1/4/18   | 0.29      | 0.50    | Brake NC 1            |           | 3-80 MLC    |
| 140   | QC                 | 10 pcs |            | 1/4/18   | 0.00      | 0.00    | QC5                   |           | PD 17-12-23 |
| 150   | Spray Paint        | 10 pcs |            | 1/5/18   | 0.00      | 0.52    | Spray Paint           |           | PD 18-01-02 |
| 160   | QC                 | 10 pcs |            | 1/5/18   | 0.00      | 0.00    | QC5                   |           | PD 18-01-11 |
| 170   | Packaging          | 10 pcs |            | 1/5/18   | 0.00      | 0.00    | Packaging3-1          |           | M 18-01-11  |
| 180   | QC21-SA            | 10 Ea  |            | 1/5/18   | 0.00      | 0.00    | QC21                  |           | DAS 21      |

RockGuard 138705 exp:12/18

### Job Allocations

| Operation             | Component Part       | Required | Inventory | Allocated | Std Qty |
|-----------------------|----------------------|----------|-----------|-----------|---------|
| 90-Start up Operation | M304S16GA<br>5012845 | 15       | 58        | 0         | 0       |

### Part Specifications

| Spec No | Description | Target/Tolerance         | Limits           | Type | Special Comments |
|---------|-------------|--------------------------|------------------|------|------------------|
| 1       | Wearshoe    | 43.500inches $\pm$ 0.030 | 43.530<br>43.470 |      |                  |
| 2       | Wearshoe    | 6.750inches $\pm$ 0.030  | 6.780<br>6.720   |      |                  |
| 3       | Wearshoe    | 10.000inches $\pm$ 0.030 | 10.030<br>9.970  |      |                  |
| 4       | Wearshoe    | 20.000inches $\pm$ 0.030 | 20.030<br>19.970 |      |                  |
| 5       | Wearshoe    | 30.000inches $\pm$ 0.030 | 30.030<br>29.970 |      |                  |
| 6       | Wearshoe    | 2.500inches $\pm$ 0.030  | 2.530<br>2.470   |      |                  |
| 7       | Wearshoe    | 3.227inches $\pm$ 0.010  | 3.237<br>3.217   |      |                  |

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                               |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------|--------------------------|
| Work Order: _____                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | DISPOSITION                                   |                          |
| Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                               |                          |
| NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | Su. _____                                     |                          |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | Step #: _____                                 |                          |
| Description Work Order Devia _____                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                               |                          |
| <div><div>Dart Aerospace Ltd.<br/>1270 Aberdeen Street<br/>Hawkesbury, ON K6A 1K7<br/>CANADA<br/>TEL.: 1 613 632-5200<br/>Email: sales@dartaero.com<br/>www.dartaerospace.com</div><div><b>D3564 - 5</b></div><div><b>Start up Operation</b><br/>Mfg Date: 12/16/17<br/>Job No: 169538</div><div><b>S023426</b><br/>Wearplate Center</div><div><b>PART NO:</b><br/><b>Revision:</b><br/><b>Operation:</b><br/><b>Change No:</b></div></div> |                          |                                               |                          |
| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                                               |                          |
| Environment                                                                                                                                                                                                                                                                                                                                                                                                                                 | <input type="checkbox"/> | No Re-verification                            | <input type="checkbox"/> |
| Design                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> | Operator                                      | <input type="checkbox"/> |
| Doc/Data                                                                                                                                                                                                                                                                                                                                                                                                                                    | <input type="checkbox"/> | Offset/Setup                                  | <input type="checkbox"/> |
| Equip/Tooling                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/> | Supplier                                      | <input type="checkbox"/> |
| Handling/Pre                                                                                                                                                                                                                                                                                                                                                                                                                                | <input type="checkbox"/> | Training                                      | <input type="checkbox"/> |
| Material                                                                                                                                                                                                                                                                                                                                                                                                                                    | <input type="checkbox"/> | Use for Testing                               | <input type="checkbox"/> |
| Internal Transport                                                                                                                                                                                                                                                                                                                                                                                                                          | <input type="checkbox"/> | Poor Information                              | <input type="checkbox"/> |
| Tribal Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/> | Rushing                                       | <input type="checkbox"/> |
| LOA                                                                                                                                                                                                                                                                                                                                                                                                                                         | <input type="checkbox"/> | Product Improvement                           | <input type="checkbox"/> |
| Substation                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/> | Process Improvement                           | <input type="checkbox"/> |
| Past Expiry Date                                                                                                                                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/> | Manufacturing Process                         | <input type="checkbox"/> |
| Misidentified                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/> | Past Due                                      | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Pressure/Force                                | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Bending                                       | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Centre Not Co                                 | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Cracks                                        | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Crimp/Kink/Rip                                | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Cuffs                                         | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Crushing                                      | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Heat Treat                                    | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Wave/Twist in Tu                              | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Marks/Chatter                                 | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Drill Holes                                   | <input type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | OTHER :                                       | <input type="checkbox"/> |
| T DEPARTMENT/PROCESS                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                               |                          |
| <input type="checkbox"/> Water Jet                                                                                                                                                                                                                                                                                                                                                                                                          |                          | <input type="checkbox"/> Engineering          |                          |
| <input type="checkbox"/> Prod. Eng. Coord.                                                                                                                                                                                                                                                                                                                                                                                                  |                          | <input type="checkbox"/> Quality              |                          |
| <input type="checkbox"/> Rec/Store/Packaging                                                                                                                                                                                                                                                                                                                                                                                                |                          | <input type="checkbox"/> Other                |                          |
| <input type="checkbox"/> Supplier                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                               |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | MRB (QSI042) Approval                         |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Completed By                                  |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Lead hand / Supervisor Approval Verification  |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | QC / QA Coordinator Approval                  |                          |
| rer Loss/Surge                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | <input type="checkbox"/> Positioned Wrong     |                          |
| y/Program                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | <input type="checkbox"/> Outside Dimensions   |                          |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | <input type="checkbox"/> Over/Under tolerance |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | <input type="checkbox"/> Part Incorrect       |                          |
| g Stock Pulled                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | <input type="checkbox"/> Part Lost/Missing    |                          |
| Sequence                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | <input type="checkbox"/> Part Moved           |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | <input type="checkbox"/> Drawing              |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | <input type="checkbox"/> Finish               |                          |
| Mislabeled                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | <input type="checkbox"/> Misread              |                          |
| Fit/Function                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | <input type="checkbox"/> Turning Sequence     |                          |
| Misaligned/off center                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                               |                          |



|    |          |                                |                  |
|----|----------|--------------------------------|------------------|
| 8  | Wearshoe | 38.500inches $\pm$ 0.010       | 38.510<br>38.490 |
| 9  | Wearshoe | 5.500inches $\pm$ 0.010        | 5.510<br>5.490   |
| 10 | Wearshoe | 2.500inches $\pm$ 0.030        | 2.530<br>2.470   |
| 11 | Wearshoe | 2.432inches $\pm$ 0.010        | 2.442<br>2.422   |
| 12 | Wearshoe | 0.300inches $\pm$ 0.010        | 0.310<br>0.290   |
| 13 | Wearshoe | 0.300inches $\pm$ 0.010        | 0.310<br>0.290   |
| 14 | Wearshoe | 0.188inches + 0.005<br>- 0.001 | 0.193<br>0.187   |
| 15 | Wearshoe | 0.375inches $\pm$ 0.010        | 0.385<br>0.365   |
| 16 | Wearshoe | 0.063inches $\pm$ 0.010        | 0.073<br>0.053   |

Plex 12/13/17 12:54 PM dart.poulin.mario

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            |                                                |                                               |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                                                            |                                                |                                               |
| Date :                                                       | Step #:                                                                                                                                                                            | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            | MRB (QSI042) Approval                          |                                               |
| Description Work Order Deviation                             |                                                                                                                                                                                    | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                            | Completed By                                   |                                               |
|                                                              |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            | Lead hand / Supervisor Approval Verification   |                                               |
|                                                              |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            | QC / QA Coordinator Approval                   |                                               |
|                                                              |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            |                                                |                                               |
| Root Cause                                                   |                                                                                                                                                                                    | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                            |                                                |                                               |
| Environment <input type="checkbox"/>                         | No Re-verification <input type="checkbox"/>                                                                                                                                        | Pressure/Forced <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Temperature/Cure <input type="checkbox"/>                  | Power Loss/Surge <input type="checkbox"/>      | Positioned Wrong <input type="checkbox"/>     |
| Design <input type="checkbox"/>                              | Operator <input type="checkbox"/>                                                                                                                                                  | Bending <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Set-up <input type="checkbox"/>                            | Folio/Program <input type="checkbox"/>         | Outside Dimensions <input type="checkbox"/>   |
| Doc/Data <input type="checkbox"/>                            | Offset/Setup <input type="checkbox"/>                                                                                                                                              | Centre Not Concentric <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | BOM/Route <input type="checkbox"/>                         | Grain <input type="checkbox"/>                 | Over/Under tolerance <input type="checkbox"/> |
| Equip/Tooling <input type="checkbox"/>                       | Supplier <input type="checkbox"/>                                                                                                                                                  | Cracks <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Broken/Damage/Defect <input type="checkbox"/>              | Weld <input type="checkbox"/>                  | Part Incorrect <input type="checkbox"/>       |
| Handling/Pre <input type="checkbox"/>                        | Training <input type="checkbox"/>                                                                                                                                                  | Crimp/Kink/Ripple/Wave <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/>    | Part Lost/Missing <input type="checkbox"/>    |
| Material <input type="checkbox"/>                            | Use for Testing <input type="checkbox"/>                                                                                                                                           | Cuffs <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Contamination <input type="checkbox"/>                     | Out of Sequence <input type="checkbox"/>       | Part Moved <input type="checkbox"/>           |
| Internal Transport <input type="checkbox"/>                  | Poor Information <input type="checkbox"/>                                                                                                                                          | Crushing <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Countersink <input type="checkbox"/>                       | Off-set <input type="checkbox"/>               | Drawing <input type="checkbox"/>              |
| Tribal Knowledge <input type="checkbox"/>                    | Rushing <input type="checkbox"/>                                                                                                                                                   | Heat Treat <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Cut Too Short <input type="checkbox"/>                     | Mislabeled <input type="checkbox"/>            | Finish <input type="checkbox"/>               |
| LOA <input type="checkbox"/>                                 | Product Improvement <input type="checkbox"/>                                                                                                                                       | Wave/Twist in Tube <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Instructions Incomplete/Unclear <input type="checkbox"/>   | Fit/Function <input type="checkbox"/>          | Misread <input type="checkbox"/>              |
| Substation <input type="checkbox"/>                          | Process Improvement <input type="checkbox"/>                                                                                                                                       | Marks/Chatter <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Drill Holes <input type="checkbox"/>                       | Misaligned/off center <input type="checkbox"/> | Turning Sequence <input type="checkbox"/>     |
| Past Expiry Date <input type="checkbox"/>                    | Manufacturing Process <input type="checkbox"/>                                                                                                                                     | OTHER : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                            |                                                |                                               |
| Misidentified <input type="checkbox"/>                       | Past Due <input type="checkbox"/>                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            |                                                |                                               |







Dart Hawkesbury  
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada  
Tel (613) 632-5200

## Inventory

| Operation Number                                    | Operation  | Serial Number | Job    | Quantity | Weight | Original Serial Number | Location | Container | Status | Added      | Special Comments | Label                                                                               | Supplier | Change No |
|-----------------------------------------------------|------------|---------------|--------|----------|--------|------------------------|----------|-----------|--------|------------|------------------|-------------------------------------------------------------------------------------|----------|-----------|
| Part Number: D3564-5 Revision: Wearplate Center     |            |               |        |          |        |                        |          |           |        |            |                  |                                                                                     |          |           |
| 180                                                 | QC21-SA    | S023426       | 169538 | 11 Ea    | 0      | S023426                | FP001    | Bin       | Stock  | 12/16/2017 | Issue Container  |  |          |           |
| Operation Totals:                                   |            | 1             |        | 11       | 0      |                        |          |           |        |            |                  |                                                                                     |          |           |
| Part Totals:                                        |            | 1             |        | 11       | 0      |                        |          |           |        |            |                  |                                                                                     |          |           |
| Part Number: M304S16GA Revision: 304/316 Sheet .063 |            |               |        |          |        |                        |          |           |        |            |                  |                                                                                     |          |           |
| 100                                                 | Receive sf | S023570       | 169538 | 16 sf    | 0      |                        | MAT010   |           | Stock  | 12/16/2017 | Issue Container  |  |          |           |
| Operation Totals:                                   |            | 1             |        | 16       | 0      |                        |          |           |        |            |                  |                                                                                     |          |           |
| Part Totals:                                        |            | 1             |        | 16       | 0      |                        |          |           |        |            |                  |                                                                                     |          |           |
| Totals:                                             |            | 2             |        | 27       | 0      |                        |          |           |        |            |                  |                                                                                     |          |           |

Plex 1/12/2018 7:32 AM Dart.Lajeunesse.Marie